


Abstract:

An axle suspension for rigid axles of vehicles, especially air-suspension (e.g., with air shock absorbers/ air springs) utility vehicles, is presented, in which a said twistable four-point connecting rod (4), which is connected in an articulated manner to the said vehicle axle (3), on the one hand, and to the said vehicle body (1a, 1b), on the other hand, and which is connected to the said vehicle axle (3) and to the said vehicle body (1a, 1b) by two said joints (5, 6, 7, 8) each located at spaced locations from one another in the transverse direction of the vehicle, is arranged above the said vehicle axle (3), at least one said axle strut (11, 12), which extends in the longitudinal direction of the vehicle and connects the said vehicle axle (3) to the said vehicle body (1a, 1b) in a vertically movable manner, is arranged on each side of the vehicle for guiding the axle and at least one said air spring assembly unit (19, 20) is arranged between the said vehicle axle (3) and the said vehicle body (1a, 1b) for spring suspension, wherein the axle struts 11, 12 are connected to the vehicle axle 3 by a molecular joint 15, 16 each.

 The articulated mounting of the vehicle axle leads to a markedly more favorable elasticity for the entire system of the axle suspension and to an unambiguous assignment of the kinematic conditions under all driving conditions, so that an inward and outward deflection of the axle as well as the pendular behavior are not adversely affected by squeezing or jamming of the vehicle axle.